

ABSTRACT

A method and apparatus are provided for superimposing the position and orientation of a diagnostic and/or treatment device on a previously acquired three-dimensional anatomic image such as a CT or MRI image, so as to enable navigation of the diagnostic and/or treatment device to a desired location. A plurality of previously acquired three-dimensional images may be utilized to form a "movie" of the beating heart which can be synchronized with a patient's EKG in the operating room, and the position of the diagnostic and/or treatment device can be superimposed on the synchronized "movie" of the beating heart. An electrophysiological map of the heart can also be superimposed on the previously acquired three-dimensional anatomic image and/or the "movie" of the beating heart.